# APPENDIX B

[Administrative Order On Consent]

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION VII

INTHE MATTER OF: LeMars Coal Gas Site LeMars, Plymouth County, Iowa	ADMINISTRATIVE ORDER ON CONSENT FOR RESPONSE ACTIVITIES IN COORDINATION
City of Le Mars, Iowa,	WITH EPA'S NON-TIME CRITICAL REMOVAL ACTION
Respondent.	U.S. EPA Region VII CERCLA Docket No.  CERCLA-07-2005-012
	Proceeding Under Sections 104, 106(a) and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9606(a), and 9622
TABLE O	F CONTENTS
I. JURISDICTION AND GENERAL PROVIS	<u>IONS</u>
II. PARTIES BOUND	4
IIL <u>DEFINITIONS</u>	4
IV. <u>FINDINGS OF FACT</u>	
V. CONCLUSIONS OF LAW AND DETERM	MINATIONS10
VI. ORDER	
VIL DESIGNATION OF CONTRACTOR.	

PROJECT COORDINATOR,

VIII. WORK TO BE PERFORMED ...

AND ON-SCENE COORDINATOR .....

IX. SITE ACCESS	15
X. ACCESS TO INFORMATION	
XI. RECORD RETENTION	17
XII. COMPLIANCE WITH OTHER LAWS	18
XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES	18
XIV. <u>AUTHORITY OF ON-SCENE COORDINATOR</u>	18
XV. <u>DISPUTE RESOLUTION</u>	19
XVI. FORCE MAJEURE	19
XVII. STIPULATED PENALTIES	20
XVIII. RESERVATIONS OF RIGHTS BY EPA	22
XIX. OTHER CLAIMS	24
XX. CONTRIBUTION PROTECTION	25
XXI. <u>INDEMNIFICATION</u>	
XXII. <u>INSURANCE</u>	27
XXIII. MODIFICATIONS	27
XXIV. NOTICE OF COMPLETION OF WORK	27
XXV. SEVERABILITY/INTEGRATION/APPENDICES	28
XXVI_EFFECTIVE DATE	2.8

# I. JURISDICTION AND GENERAL PROVISIONS

- 1. This Administrative Order on Consent ("Order") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the City of Le Mars, Iowa (Respondent). This Order provides for the performance of certain response actions described in this Order (and the Statement of Work attached as Appendix C) by Respondent in coordination with EPA's non-time critical removal action at the Le Mars Coal Gas Site in Le Mars, Iowa (Site).
- 2. This Order is issued under the authority vested in the President of the United States by Sections 104, 106(a), and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), and 9622, as amended (CERCLA), and delegated to the Administrator of EPA by Executive Order No 12580, January 23, 1987, 52 Fed. Reg. 2923, and further delegated to EPA regional Administrators by EPA delegation No 14-14-C. The Regional Administrator for EPA Region 7 has further delegated this authority to the Director of the Superfund Division, EPA Region 7 by EPA Delegation No. R7-14-14-C.
- 3. EPA has notified the State Iowa of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
- 4. Respondent agrees to comply with and be bound by this Order, and to undertake the actions required by the terms and conditions of this Order. Respondent consents to and agrees that it will not contest the authority or jurisdiction of EPA to issue or enforce this Order, and agrees further that it will not contest the basis or validity of this Order or its terms.
- 5. Respondent's consent to sign this Order and undertake the actions required by this Order does not constitute agreement by Respondent with EPA's findings of fact and conclusions of law. Voluntary participation of Respondent in this Order does not constitute an admission of liability and is not admissible against Respondent except in any judicial or administrative proceeding by the United States to enforce this Order or a judgment related to it.
- 6. The Work that Respondent is voluntarily agreeing to perform pursuant to this Order will assist the EPA with its non-time critical removal action at the Site. The United States and Respondent intend to engage in future good faith negotiations to try to resolve and settle Respondent's liability to the United States for all response costs (past and future) incurred by the United States at the Site.
- 7. Respondent understands that the Attorney General of the United States is vested with the statutory authority to approve any compromise of claims of the United States in this matter. No part of this Order is intended, nor shall it be interpreted, as a compromise of any claim of the United States against any person, including Respondent, under CERCLA or any other federal law or regulation.

# II. PARTIES BOUND

- 8. This Order applies to and is binding upon Respondent, the City of Le Mars, its officers, directors, employees, agents, servants, successors and assigns, and upon all persons, firms, and corporations who assist the City in performing its obligations under this Order. This order applies to and is binding upon EPA. No change in ownership, corporate status or legal status of Respondent, including, but not limited to, any transfer of assets or real or personal property, shall in any way alter such Respondent's obligations and responsibilities under this Order.
- 9. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Order (and all other documents approved under or pursuant to this Order which are relevant to conducting the Work) and comply with this Order. Respondent shall be responsible for compliance with this Order and for ensuring that their contractors, subcontractors and agents comply with this Order, and perform all Work in accordance with this Order. Respondent shall be responsible for any noncompliance with this Order.

#### III. DEFINITIONS

- 10. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:
- a. "Action Memorandum" shall mean the September 26, 2003, EPA Action Memorandum for the Site, including any amendments to the Action Memorandum, signed by the Regional Administrator, EPA Region VII or his/her delegate, and all attachments thereto. The "Action Memorandum" is attached as Appendix A.
- b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, et seq.
- c. "Day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.
- d, "Effective Date" shall be the effective date of this Order as provided in Section XXVI.
- e. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

- f. "Response Costs" shall include all costs incurred by the United State's this Site, including past and future costs, and the costs incurred by EPA in connection with this Order (including but not limited any oversight costs, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including but not limited to payroll costs, contractor costs, travel costs, laboratory costs, any costs incurred pursuant to Paragraph 50 (costs and attorneys fees and any costs incurred to secure access, including the amount of just compensation), Paragraph 60 (emergency response), and Paragraph 86 (work takeover).
- g. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.
- h. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.
- i. "Order" shall mean this Administrative Order on Consent and all appendices attached hereto. In the event of conflict between this Order and any appendix, this Order shall control.
  - j. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.
  - k. "Parties" shall mean EPA and Respondent
- 1. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, et seq. (also known as the Resource Conservation and Recovery Act).
  - m. "Respondent" shall mean the City of Le Mars, Iowa.
  - n. "Section" shall mean a portion of this Order identified by a Roman numeral.
- o. "Site" shall mean the Le Mars Coal Gas Superfund Site, encompassing approximately 1.6 acres, located at 331 First Street, NE, Le Mars, Plymouth County, Iowa, and depicted generally on the map attached as Appendix B.
  - p. "State" shall mean the State of Iowa.
- q. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the "Work" and response activities by Respondent required by this Order,

including those set forth in Appendix C to this Order, and any modifications made thereto in accordance with this Order.

- r. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), or Iowa Administrative Code 567, Chapters 100 to 219.
- s. "Work" shall mean all response activities Respondent is required to perform under this Order.

# IV. FINDINGS OF FACT

- 11. The Le Mars Coal Gas Superfund Site encompasses approximately 1.6 acres and is located at 331 First Street, NE, Le Mars, Plymouth County, Iowa, and depicted generally on the map attached as Appendix B. The Site is triangular in shape and bordered on the south and east by public sidewalks and parking and on the north and west by railroad tracks.
- 12. The Site was operated previously as a manufactured gas plant (MGP) which produced coal gas. The Le Mars Gas Light Company constructed and operated the manufactured gas plant (a/k/a a coal gasification plant) from 1884 until roughly the end of the century. The initial plant included, among other things, a production building with a retort room, coal room, lime and meter room, and purifying room; a gas holder; a tar well, and an office building. The Le Mars Gas Light Company dissolved in 1904.
- 13. The Le Mars Gas Company acquired the plant in 1898. The Le Mars Gas Company owned and operated the Site property and the MGP from approximately 1898 to 1942. During the course of its ownership and operation, the Le Mars Gas Company expanded the plant operations, including the addition of plant facilities (including oil tanks and a 100,000 cubic foot gas holder) and the eventual conversion of the plant operations from coal gas to carbureted water (oil and water) gas.
- 14. In 1942, Iowa Public Service Company (IPSC) became the owner and operator of the Site when it purchased the Site property, the plant and its structures, and the existing utility operations, including the gas distribution system. Following SEC approval, IPSC acquired the Site, the plant property and the utility operations of Le Mars Gas Company. In 1942, the Le Mars Gas Company transferred, assigned, and set over to IPSC and its successors and assigns its rights and duties (for a period of 25 years) under Ordinance 236, including, but not limited to the right to establish, maintain and operate a gas works plant and a distribution system within the City of Le Mars. The Le Mars Gas Company then dissolved in 1942.

<sup>&</sup>lt;sup>1</sup> In 1963, those rights and duties granted to IPSC, its successors and assigns, were renewed for another 25 years by Ordinance 411.

- 15. While IPSC owned and operated the Site, IPSC modified the Site property and structures, including portions of the MGP. Among other things, IPSC modified existing buildings, removed certain fixtures from the gas plant, constructed a building, and dismantled existing portions of the manufactured gas plant, including the plant building and gas holders. Among other things, IPSC arranged by contract in March 1943 to demolish the MGP building and certain structures and fixtures ("the old gas plant") and to build a 20' by 72' foot building in its place.
- 16. IPSC owned and operated the Site from approximately 1942 to August 1953. Following certain plant demolition and building construction activities, IPSC sold most of the Site property to C.W. Miller in August 1953, except a portion of the property that contained the new 20' by 72' foot building. IPSC leased back the portion of the Site it had sold and continued in possession and operation at the Site until at least 1967.
- 17. In September 1967, C.W. Miller sold the property that he owned the majority of the Site property, to the City of Le Mars, reserving the portion that had not been conveyed to C.W. Miller by IPSC the portion of the property containing the 20' by 72' building.
- 18. The City of Le Mars, Respondent, is the current owner of that portion of the Site property and uses it for operations of the City's Street Department. The Le Mars Street Department uses the property for office, maintenance, and storage facilities. The Site currently includes an office and maintenance shop building, two storage buildings, a shed, a gravel parking lot, a gas pump and an above ground waste oil tank. The Site at times included tar well and a number of underground storage tanks, some associated with the gas plant and others installed in the mid-1980's by the City. Prior to EPA removal activities, the Site included a tar well and at least three tanks installed by the City, including a 2,000-gallon underground diesel tank, a 12,000-gallon underground gasoline tank, and a 500-gallon underground waste oil tank.
- 19. A drainage ditch and culvert (previously open but now covered with a concrete culvert) extends south underneath the former manufactured gas plant Site and empties into an open drainage ditch. The drainage ditch flows below the railroad tracks on the northern Site boundary. Surface water from the Site also drains into this ditch. The drainage ditch flows into Willow Creek, which empties into the Floyd River.
- 20. Land use adjacent and surrounding the Site includes mixed residential and commercial properties.
- 21. The City of Le Mars uses six municipal wells (well numbers 4,6,7,8, 9 and 10). Private residential wells are also in use within the city limits of Le Mars. The nearest municipal wells, well numbers 4 and 8, are located approximately 2,000 feet downgradient of the Site. Six private residential wells are located within one mile of the Site.

- 22. In or around 1985, Respondent installed underground storage tanks (UST) for gasoline and/or diesel oil. During the installation, the City noted and observed contamination at the Site. Thirteen foot deep monitoring wells were installed adjacent the tanks subsequent to the installation of the USTs. The Iowa Department of Natural Resources was informed of contamination and releases in 1990.
- 23. In 1990, Respondent collected subsurface samples from a soil boring near the USTs at the Site. The analytical results associated with the samples were indicative of a UST leak because they documented the presence of total organic hydrocarbons (TOHs) in concentrations as high as 2,300 ug/g. The results exceeded the Iowa Department of Natural Resources (IDNR) guidelines of 100 ug/g.
- 24. IDNR requested pressure tests of the USTs to detect potential releases of hazardous substances and/or gasoline or diesel fuel, which were performed by Respondent in December 1990. Respondent believes that at that time the pressure tests may not have revealed that the USTs were leaking. Other evidence indicates releases of petroleum near the USTs.
- 25. During the installation of additional monitoring wells at the Site in 1995, the State detected a strong cresol odor in the soils. Sampling revealed the presence of carcinogenic and non-carcinogenic polynuclear aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPHs) (as gasoline and as fuel oil). The State subsequently referred the Site to EPA.
- -26. Releases and threatened releases of hazardous substances have occurred and are occurring at the Site. Those hazardous substances include coal tar wastes composed of PAHs such as benzo(a)pyrene, naphthalene, anthracene, acenaphthlene, and phenanthrene; phenolic compounds including phenol and methylphenols; light aromatic compounds such as benzene, toluene and xylenes; various inorganics such as dibenzofuran; inorganics including cyanide, arsenic, chromium, lead, copper, zinc, iron; various sulfides; ammonia; and nitrates.
- 27. EPA has conducted response actions at the Site to evaluate and address the releases and threatened releases of hazardous substances at the Site.
- 28. In 1995, EPA conducted a Preliminary Assessment at the Site, confirming releases and threatened releases of hazardous substances in the soils and groundwater, including PAHs and TPHs.
- 29. In 1997, EPA conducted a Site Investigation at the Site. The Site Investigation confirmed releases and threatened releases of hazardous substances at the Site from soils and groundwater, including volatile and semi-volatile organic compounds (VOCs and SVOCs), carcinogenic and non-carcinogenic PAHs, metals, and cyanide. Sampling results documented contamination of the groundwater, surface and subsurface soil, and sediment. Sampling results confirmed releases and threatened releases and elevated levels of hazardous substances at the Site, including (1) carcinogenic PAHs such as benzo(a)anthracene, benzo(b)fuoranthene,

benzo(k)fuoranthene, benzo(a)pyrene, chrysene, dibenzon(a,h) anthracene, indeno1,2,3-cd) phenanthrene, and pyrene; (2) VOCs such as benzene, toluene, ethylbenzene, acetone, carbon disulfide, methyl ethyl ketone, stynene, and xylene; (3) SVOCs such as napthalene, 2-methylnapthalene, phenol, 2-mthylphenol (o-cresol); 4 methylphenol (p-cresol); crbozole; and dibenzofuran; (4) metals such as manganese, copper, cadmium, arsenic, lead, and cyariide.

- 30. In 2000, EPA conducted an Expanded Site Investigation at the Site, which included the installation of 12 groundwater monitoring wells, sampling soil, sediment, and surface water, and further evaluation of the threat to human health and the environment. Sampling confirmed releases and threatened releases of hazardous substances (including VOCs, SVOCs, PAHs, and metals) at and from the Site. Samples from the monitoring wells indicated that VOCs, including benzene and toluene, PAHs and cyanide have migrated off-site in the shallow aquifer. Sediment samples taken from the drainage ditch indicated elevated PAH levels, including benzo(a)pyrene. Elevated PAH levels, including naphthalene, benzo(a)anthracene, benzo(a)pyrene, and indeno(1,2,3-cd)pyrene; VOC levels, including benzene, toluene, ethyl benzene, and xylene; and cyanide levels were detected in surface and subsurface soils on-site as well as at an adjacent residence. Highly contaminated soil samples were collected from locations where former manufactured gas plant structures, the gasometer, gas holders and tar well, were located.
- 31. In 2003, EPA completed an Engineering Evaluation/Cost Analysis (EE/CA) to identify and evaluate proposed removal action alternatives to address the contamination at the Site, including the benzene and total B(a)P equivalents-contaminated soil and groundwater and other hazardous substances at the Site.
- 32. On September 26, 2003, EPA approved and issued an Action Memorandum authorizing a non-time critical removal action at the Site. On April 19, 2004, EPA commenced the removal action to addresses releases and threatened releases of hazardous substances at the Site, including benzene, toluene, ethylbenzene, xylenes (BTEX) and PAHs. The removal action includes, but is not limited to, excavation down to the water table of approximately 14 feet of contaminated soil, thermal treatment of waste materials, backfill of excavated areas, and removal of certain structures, including Gas Holders A and B, the tar well, the 12,000-gallon UST, two 6,000-gallon FMGP oil tanks, and one 2,000-gallon UST. EPA has not determined the extent of additional response actions that may be undertaken at the Site. EPA's removal action objectives as set forth in the Action Memorandum were achieved. EPA believes that the actions to be performed by the City pursuant to this Order will provide necessary post-removal monitoring of the ground water and institutional controls to limit exposure to remaining contamination at the Site.
- 33. PAHs, which include, but are not limited to naphthalene, benzo(a)anthracene, benzo(a)pyrene, and indeno(1,2,3-cd)pyrene, are hazardous substances. PAHs may be toxic to humans and animals via oral, dermal, or respiratory routes of exposure. As environmental pollutants, PAHs are slightly to moderately soluble in water and are soluble in other organic

compounds such as benzene. Some PAHs are animal carcinogens. Some PAHs are probable human carcinogens.

- 34. BTEX are light aromatic hydrocarbons detected at the Site and are hazardo us substances. Benzene is a human carcinogen. These compounds may be toxic to humans and animals via oral, respiratory, or dermal routes of exposure. They are slightly soluble in water and volatile in the environment.
- 35. VOCs are hazardous substances. Chlorinated VOCs are widely used as solvents and evaporate easily. These compounds may be toxic to humans and animals via oral, dermal, or respiratory routes of exposure. Some chlorinated VOCs are animal carcinogens. Some chlorinated VOCs are probable human carcinogens.
- 36. EPA has determined that the releases and threatened releases of hazardous substances and conditions at the Site present an imminent and substantial endangerment to public health or welfare and the environment.

#### V. CONCLUSIONS OF LAW AND DETERMINATIONS

- 37. Based on the Findings of Fact set forth above, and the Administrative Record supporting EPA's non-time critical removal action and the response activities required by this Order, EPA has determined that:
- a. The Le Mars Coal Gas Superfund Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- b. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
- c. Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
- d. Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a) and is jointly and severally liable for performance of response actions and for response costs incurred and to be incurred at the Site.
  - i. Respondent is the owner/operator of the facility within the meaning of Sections 101(20) and 107(a)(1) of CERCLA, 42 U.S.C. §§ 9601(2) and 9607(a)(1).
  - ii. Respondent was an owner/operator of the facility at the time of disposal of hazardous substances at the facility with in the meaning

- of Sections 101(20) and 107(a)(2) of CERCLA, 42 U.S.C. §§ 9601(2) and 9607(a)(1).
- iii. Respondent arranged for the disposal or treatment or arranged with a transporter for disposal or treatment of hazardous substances at the facility within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. §§ 9607(a)(3).
- e. The conditions described in the Findings of Fact above (and detailed more fully in the Administrative Record for the Site) constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C.§ 9601(22).
- f. At least six months planning time existed such that this non-time critical removal action is appropriate to address the environmental problems at the Site.
- g. The response activities required by this Order are necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Order, will be considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

# VI. ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Order, including, but not limited to, all attachments to this Order and all documents incorporated by reference into this Order.

# VII. <u>DESIGNATION OF CONTRACTOR</u>, <u>PROJECT COORDINATOR</u>, AND ON-SCENE COORDINATOR

- 38. Respondent shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within 10 days of the Effective Date. Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 10 days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within 10 days of EPA's disapproval.
- 39. Within 10 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by

this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within 10 days following EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondent.

- 40. EPA has designated Dan Garvey as its On-Scene Coordinator (OSC). Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order to the OSC at the United States Environmental Protection Agency, Region VII, 901 North 5<sup>th</sup> Street, Kansas City, Kansas 66101, (913) 551-7600.
- 41. EPA and Respondent shall have the right, subject to Paragraph 39, to change their respective designated OSC or Project Coordinator. Respondent shall notify EPA 10 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

#### VIII. WORK TO BE PERFORMED

- 42. Respondent shall perform, at a minimum, all actions necessary to implement the Work consistent with this Order and the Statement of Work attached hereto as Attachment C. The actions to be implemented generally include, but are not limited to, the following:
- a) Meeting with EPA: Within fourteen (14) days of the Effective Date of the Order, or as otherwise agreed to by the Parties, Respondent shall meet with EPA to discuss all activities to be performed by Respondent pursuant to this Order and how such activities will be coordinated with EPA's removal activities at the Site.
- b) Fill Material: During on-Site removal activities, the City provided 10,192 cubic yards of backfill soil used as fill for areas of the Site excavated by EPA.
- c) Ground Water Monitoring: Upon notification by EPA of completion of excavation activities at the Site, Respondent shall begin semi-annual monitoring of the twelve permanent ground water monitoring wells installed by EPA in and around the Site. Respondent shall conduct the initial ground water sampling event as directed by EPA, and shall continue to conduct semi-annual monitoring for a period of two years from the initial date of sampling. Respondent shall maintain and provide to EPA an analytical summary database of all ground water samples collected.
- d) <u>Temporary Relocation of City Employees</u>: Respondent shall provide for temporary relocation of City Employees as necessary during excavation activities.

- e) Use of Municipal Wells #4 and #8: Respondent has informed EPA that it intends to cease the use of Municipal Wells #4 and #8 for drinking water purposes.
- f) <u>Institutional Controls</u>: After the Effective Date of this Order, Respondent agrees to refrain from using the Site in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the removal activities to be performed at the Site unless otherwise approved by EPA in writing. Such restrictions include, but are not limited to, refraining from: (1) the construction, installation, maintenance or use of any wells on the Site for the purpose of extracting water for human drinking purposes; (2) disturbance of the subsurface of the Site without prior EPA approval; (3) any type of residential development on the Site; and (4) buildings constructed on the Site shall not contain a basement.

Respondent shall execute and record in the Recorder's Office or Registry of Deeds or other appropriate land records office of Plymouth County, State of Iowa, an Environmental Protection Easement and Declaration of Restrictive Covenants running with the land, that grants the right to enforce the land/water use restrictions listed above in this Paragraph, or other restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the protectiveness of the removal measures to be performed pursuant to this Order. Such Respondent shall grant the right to enforce the land/water use restrictions to EPA and its representatives. Within sixty (60) days of the Effective Date of this Order, Respondent shall submit to EPA for review and approval a draft Environmental Protection Easement and Declaration of Restrictive Covenants, in substantially the form attached hereto as Appendix D. that is enforceable under the laws of the State of Iowa. Within thirty (30) days of EPA's approval and acceptance of the restrictive covenant, Respondent shall record the restrictive covenant with the Recorder's Office or Registry of Deeds or other appropriate office of Plymouth County, State of Iowa. Within thirty (30) days of recording the restrictive covenant, Respondent shall provide EPA with a certified copy of the original recorded covenant showing the clerk's recording stamps.

43. Health and Safety Plan. Within fourteen (14) days of the Effective Date of this Order, Respondent shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-Site work under this Order. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

#### 44. Quality Assurance and Sampling.

a. All sampling and analyses performed pursuant to this Order shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall ensure that the

laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) as meeting the Quality System requirements.

- b. Upon request by EPA, Respondent shall have such a laboratory analyze samples submitted by EPA for QA monitoring. Respondent shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.
- c. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondent shall notify EPA not less than 14 days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent's implementation of the Work.
- 45. <u>Post-Removal Site Control</u>. Respondent shall submit a proposal for post-removal site control consistent with Section 300.415(*l*) of the NCP and OSWER Directive No. 9360.2-02 as directed by EPA. Upon EPA approval, Respondent shall implement such controls and shall provide EPA with documentation of all post-removal site control arrangements.

# 46. Reporting.

a. Within 30 days of the Effective Date of this Order, Respondent shall submit a report to EPA concerning all actions undertaken to-date pursuant to this Order. Thereafter, Respondent shall submit semi-annual written progress reports to EPA beginning 45 days after the initial ground water sampling event as directed by EPA concerning ground water monitoring and any post-removal site control activities undertaken pursuant to this Order until termination of this Order, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

- b. Respondent shall submit two copies of all plans, reports or other sub missions required by this Order, the Statement of Work, or any approved work plan. Upon request by EPA, Respondent shall submit such documents in electronic form.
- c. Respondent shall, at least 30 days prior to the conveyance of any interest in real property at the Site, give written notice to the transferee that the property is subject to this Order and written notice to EPA of the proposed conveyance, including the name and address of the transferee. Respondent also agrees to require that their successors comply with the immediately proceeding sentence and Sections IX (Site Access) and X (Access to Information).
- 47. Final Report. Within 30 days after completion of all Work required by this Order, Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Order. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

48. Off-Site Shipments. Any hazardous substances, pollutants or contaminants removed off-site pursuant to this Order for treatment, storage or disposal shall be treated, stored, or

disposed of at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440, promulgated pursuant to 42 U.S.C. § 9621(d)(3).

# IX. SITE ACCESS

49. If the Site, or any other property where access is needed to implement this Order, is owned or controlled by Respondent, Respondent shall, commencing on the Effective Date, provide EPA, the State, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Order.

- 50. Where any action under this Order is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use their best efforts to obtain all necessary access agreements within thirty (30) days after the Effective Date, or as otherwise specified in writing by the OSC. Respondent shall immediately notify EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondent shall describe in writing their efforts to obtain access. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate.
- 51. Notwithstanding any provision of this Order, EPA and the State retain all of their access authorities and rights as well as all of their rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

## X. ACCESS TO INFORMATION

- 52. Respondent shall provide to EPA, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to releases or threatened releases of hazardous substances at or from the Site, activities at the Site, or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.
- 53. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondent.
- 54. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondent asserts such a privilege in lieu of providing documents, it shall provide EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the

contents of the document, record, or information; and 6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

55. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

#### XI. RECORD RETENTION

- 56. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXIV (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work, releases or threatened releases of hazardous substances at or from the Site, or the liability of any person under CERCLA with respect to the Site, regardless of any document, record, or corporate retention policy to the contrary. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXIV (Notice of Completion of Work), Respondent shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.
- 57. At the conclusion of this document retention period, Respondent shall notify EPA at least 90 days prior to the destruction of any such records or documents, and, upon request by EPA, Respondent shall deliver any such records or documents to EPA. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, they shall provide EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.
- 58. Respondent hereby certifies that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

# XII. COMPLIANCE WITH OTHER LAWS

59. Respondent shall perform all actions required pursuant to this Order in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs") under federal environmental or state environmental or facility siting laws.

## XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

- 60. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Planning and Response Branch, EPA Region VII, (913) 281-0991, of the incident or Site conditions.
- 61. In addition, in the event of any release of a hazardous substance from the Site, Respondent shall immediately notify the OSC at (913) 281-0991 and the National Response Center at (800) 424-8802. Respondent shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, et seq.

#### XIV. AUTHORITY OF ON-SCENE COORDINATOR

62. The OSC shall be responsible for overseeing Respondent's implementation of this Order. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Order, or to direct any other removal action

undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

#### XV. DISPUTE RESOLUTION

- 63. Unless otherwise expressly provided for in this Order, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Order. The Parties shall attempt to resolve any disagreements concerning this Order expeditiously and informally.
- 64. If Respondent objects to any EPA action taken pursuant to this Order it shall notify EPA in writing of its objection(s) within ten (10) days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondent shall have fourteen (14) days from EPA's receipt of Respondent's written objection(s) to resolve the dispute through form al negotiations (the Negotiation Period). The Negotiation Period may be extended at the sole discretion of EPA.
- 65. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by both Parties, be incorporated into and become an enforceable part of this Order. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Superfund Division Director level or higher will issue a written decision on the dispute to Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Order. Respondent's obligations under this Order shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

# XVI. FORCE MAJEURE

- 66. Respondent agrees to perform all requirements of this Order within the time limits established under this Order, unless the performance is delayed by a *force majeure*. For purposes of this Order, a *force majeure* is defined as any event arising from causes beyond the control of Respondent, or of any entity controlled by Respondent, including but not limited to its contractors and subcontractors, which delays or prevents performance of any obligation under this Order despite Respondent's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.
- 67. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a *force majeure* event, Respondent shall notify EPA orally within three (3) days of when Respondent first knew that the event might cause a delay. Within three (3) days thereafter, Respondent shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a

statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

68. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Order that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Respondent in writing of its decision. If EPA agrees that the delay is attributable to a force majeure event, EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

## XVII. STIPULATED PENALTIES

69. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 70 and 71 for failure to comply with the requirements of this Order specified below, unless excused under Section XXVI (Force Majeure). "Compliance" by Respondent shall include completion of the activities under this Order or any plan approved under this Order identified below in accordance with all applicable requirements of law, this Order, the SOW, and any plans or other documents approved by EPA pursuant to this Order and within the specified time schedules established by and approved under this Order.

# 70. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance with the Work to be Performed (Section VIII):

Penalty Per Violation Per Day	Period of Noncompliance	
\$500.00	1st through 14th day	
\$1000.00	15th through 30th day	
\$2000.00	31st day and beyond	

71. <u>Stipulated Penalty Amounts - Reports</u>. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents pursuant to Paragraphs 46 and 47:

Penalty Per Violation Per Day
\$500.00

\$1000.00

\$2000.00

\$2000.00

Period of Noncompliance

1st through 14th day

15th through 30th day

31st day and beyond

- 72. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 86 of Section XVIII, Respondent shall be liable for a stipulated penalty in the amount of the cost of the performance of such Work as determined by EPA.
- 73. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency; and 2) with respect to a decision by the EPA Management Official at the Superfund Division Director level or higher, under Paragraph 65 of Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.
- 74. Following EPA's determination that Respondent has failed to comply with a requirement of this Order, EPA may give Respondent written notification of the failure and describe the noncompliance. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondent of a violation.
- 75. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XV (Dispute Resolution). All payments to EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to U.S. EPA Region VII, Superfund, P.O. Box 371099M, Pittsburgh, PA 15251, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number 07YH, the EPA Docket Number, and the name and address of the party making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to:

Linda Long Regional Financial Management Officer U.S. Environmental Protection Agency 901 North Fifth Street Kansas City, Kansas 66101

Dan Garvey
On Scene Coordinator
U.S. Environmental Protection Agency
901 North Fifth Street
Kansas City, Kansas 66101

- 76. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Order.
- 77. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision. In the event that Respondent prevails on a disputed issue, stipulated penalties related solely to that disputed issue shall not be assessed by EPA.
- 78. If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 73. Nothing in this Order shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Order or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Order or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XVIII, Paragraph 86. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Order.

#### XVIII. RESERVATIONS OF RIGHTS BY EPA

79. Except as specifically provided in this Order, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order any and all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or

equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

- 80. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies and defenses, both legal and equitable, including the rights (1) to disapprove Work performed by Respondent pursuant to this Order, (2) to perform any portion of the Work required herein; (3) to require that Respondent perform tasks in addition to those required by this Order and the attached SOW, including the right to require additional investigation, characterization, studies and/or response actions pursuant to CERCLA or other applicable legal authorities; (4) to issue orders to any person to require further response action as determined necessary by EPA; (5) to bring an action seeking the assessment of penalties under Section 106(b) of CERCLA, 42 U.S.C. 9606(b); (6) to bring an action against Respondent to collect stipulated penalties, if any, assessed pursuant to Section XVII of this Order; (7) to bring an action against Respondent for civil penalties pursuant to Section 109 of CERCLA, 42 U.S.C. 9609; and to seek injunctive relief, monetary penalties and punitive damages for any violation of law or of this Order.
- 81. EPA reserves its right to seek reimbursement from Respondent or any other person for costs incurred by the United States to the full extent allowed by CERCLA and any other applicable law. This Order shall not be construed as a covenant not to sue, release, waiver or limitation of any rights, remedies, powers or authorities, civil or criminal, which EPA has under CERCLA, RCRA, or any other statutory, regulatory or common law enforcement authority of the United States.
- 82. This Order shall not be construed as providing Respondent any covenant not to sue for any Response Costs (Past or Future) incurred by the United States, including EPA, in connection with the Site pursuant to CERCLA or any other statutory, regulatory, common or applicable law. Nor shall this Order be construed as any release, waiver or limitation concerning the United States right to seek cost recovery against Respondent or any person for any Response Costs (Past and Future) incurred by the United States, including EPA, in connection with the Site, or to seek injunctive relief or other remedy against Respondent or any person under CERCLA, RCRA, or any other statutory, regulatory, common or applicable law.
- 83. All activities undertaken by Respondent pursuant to this Order shall be performed in accordance with the requirements of all applicable federal, state and local laws and regulations. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with CERCLA, RCRA, or any other applicable federal or state laws and regulations. This Order is not, and shall not be construed as a permit issued pursuant to any federal or state statute or regulation. Nor does this Order relieve Respondent of any obligation to obtain and comply with any federal, state or local permit. Where any portion of the Work requires a federal, state or local permit or approval, Respondent shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

- 84. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection, enforcement, administrative, judicial and other authorities and rights under CERCLA including Sections 104, 106, and 107 of CERCLA, 42 U.S.C. §§ 9604, 9606, and 9607, and any other applicable statutes or regulations.
- 85. EPA reserves, and this Order is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:
  - a. claims based on a failure by Respondent to meet a requirement of this Order;
  - b. liability for any response costs (past and future) incurred by the United States;
  - c. liability for performance of response action other than the Work;
  - d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials at the Site or outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry or any other Federal agency related to the Site.
- 86. Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. In the event that EPA determines that Work in compliance with this Order or not in compliance with this Order has caused or may cause a release of hazardous substances or hazardous constituents or a threat to human health or the environment or that Respondent is not capable of undertaking any Work required hereunder, EPA reserves the right to order respondents to stop further implementation of this Order for such period of time as EPA determines may be needed to abate any such release or threat or to undertake any action that EPA determines is necessary to abate such release or threat. Notwithstanding any other provision of this Order, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

#### XIX. OTHER CLAIMS

87. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The

United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order. Respondents and its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants shall not be considered the agents of the United States.

- 88. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability R espondent or any person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.
- 89. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).
- 90. Respondent agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work or this Order, including, but not limited to:
- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Iowa Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or
- c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Site.
- 91. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

#### XX. CONTRIBUTION PROTECTION

92. The Parties agree that Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f) and 122 of CERCLA, 42 U.S.C. §§ 9613(f) and 9622, for "Matters Addressed" in this Order. The "matters addressed" in this Order are the Work performed by Respondent in compliance with this Order.

- 93. Nothing in this Order precludes the United States or Respondent from asserting any claims, causes of action, or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.
- 94. In any subsequent administrative or judicial proceeding initiated by the United States on behalf of EPA for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondent shall not assert, and may not maintain, any defense or claim based up on the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defense based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant action.

#### XXI. INDEMNIFICATION

- 95. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Order. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their-control, in carrying out activities pursuant to this Order. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Order. Neither Respondent nor any such contractor shall be considered an agent of the United States.
- 96. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.
- 97. Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

#### XXII. <u>INSURANCE</u>

98. At least 7 days prior to commencing any on-Site work under this Order, Respondent shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of one million dollars (\$1,000,000), combined single limit. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Order. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

#### XXIII. MODIFICATIONS

- 99. The OSC may make modifications to any plan or schedule or Statement of Work in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Order may be modified in writing by mutual agreement of the Parties.
- 100. If Respondent seeks permission to deviate from any approved work plan or schedule or Statement of Work, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 99.
- 101. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

# XXIV. NOTICE OF COMPLETION OF WORK

102. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, EPA will provide written notice to Respondent. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with

the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Order.

#### XXV. SEVERABILITY/INTEGRATION/APPENDICES

- 103. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.
- 104. This Order and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Order. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Order.

#### XXVI. EFFECTIVE DATE

105. This Order shall be effective upon the signature of the Regional Administrator or his delegatee. The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this Order and to bind the party it represents to this document.

Agreed this 18 day of JAN, 2005.

For Respondent City of Le Mars, Iowa

Title 27 agar

BY:	) DATE: 2/4/05
Cecilia Tapia, Dire	ctor /
Superfund Division	
Region VII	
U.S. Environmenta	l Protection Agency

# APPENDIX A

# ACTION MEMORANDUM



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

# REGION VII 901 NORTH 5TH STREET KANSAS CITY KANSAS 66101

# ACTION MEMORANDUM

Request for a Non-Time-Critical Removal Action at the Le Mars Coal Gas Plant SUBJECT:

Site, Le Mars, Plymouth County, Iowa

Daniel J. Garvey FROM:

Federal On-Scene Coordinator Signature (1) 4125/03

SUPR/EFLR:

Kenneth'S. Buchholz, Chief THRU:

SUPR/EFLR

Cecilia Tapia, Acting Director TO:

Superfund Division

CERCLIS ID: IA0001032556

O7YH SITE ID:

CATEGORY OF REMOVAL: Non-Time-Critical

NATIONALLY SIGNIFICANT: No

#### **PURPOSE** I.

The purpose of this Action Memorandum is to request approval and funding for a nontime-critical removal action at the Le Mars Coal Gas Plant Site (Site) which is located in Le Mars, Plymouth County, Iowa. The Site is a former manufactured gas plant (FMGP). The Environmental Protection Agency (EPA) is recommending the removal of coal tar wastes containing benzene, toluene, ethylbenzene, xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs) from the Site area. Approximately 14 feet of contaminated soil requires excavation down to the water table. In addition, Gas Holders A and B, the tar well, the 12,000gallon underground storage tank (UST), two 6,000-gallon FMGP oil tanks, and one 2,000-gallon UST will also be removed. The estimated cost of the removal action is \$1,980,000.

#### II. SITE CONDITIONS AND BACKGROUND

# A. Site Description

#### 1. Background

The Le Mars Coal Gas plant was constructed by the Le Mars Gas Light Company in 1884. Initially the plant included a single production building housing the retort room, coal room, lime and meter room, purifying room, one gas holder (Gas Holder A), a tar well, and a main office building. The Le Mars Gas Company acquired the facility in 1898 and expanded operations to include the conversion from coal gas to water and oil gas, the addition of an oil tank, and a 100,000-cubic-foot (ft<sup>3</sup>) gas holder (Gas Holder B).

Sometime before 1920, the Le Mars Gas Company discontinued production of oil gas and by 1930 converted from water gas to carbureted water gas. In 1929, the Le Mars Gas Company produced 23 million ft<sup>3</sup> of gas. In 1939, Le Mars ceased operation when the facility converted from manufactured gas to natural gas. This conversion was completed on December 14, 1939, while the Le Mars Gas Company was a subsidiary of Great Lakes Utilities Corporation.

The Iowa Public Service (IPS) Company purchased the natural gas distribution system in 1942. The Site was included in this purchase. On March 19, 1953, IPS entered into a contractual agreement with C.W. Miller of Le Mars for the sale of the Le Mars site property. A service building was constructed and the building was leased to IPS for 20 years. On September 14, 1967, Miller sold the property to the City of Le Mars which is the current property owner. The Site is currently occupied by the Le Mars Street Department, which uses it for office, maintenance, and storage facilities. The Street Department vehicles are parked and maintained on the Site property.

In 1985, during the city of Le Mars' ownership of the Site, the city installed a UST. During the installation, the city noted and observed potential contamination at the Site. In 1990, a city contractor collected subsurface samples from a soil boring near the USTs at the Site. The analytical results associated with the samples indicated the presence of total organic hydrocarbons in concentrations as high as 2,300 ug/g. Pressure tests of the USTs were performed by the city in December 1990. City officials reported that the test results indicated that there was no leakage from the USTs.

#### 2. Physical Location

The Site is located at 331 1st Street Northeast, Le Mars, Plymouth County, Iowa and is a 1.6-acre, right-triangle-shaped property, which is bordered on the northwest by the Union Pacific and Canadian National railroads, on the east by 4th Avenue Northeast and on the south by 1st Street Northeast. The area surrounding the Site is occupied by residential and commercial properties. The Site is in Section 9, Township 92 North, Range 45 West (U. S.

Geological Survey [USGS] 1985). The geographic coordinates of the Site are latitude 42 47 40 north and longitude 96 09 37 west.

#### 3. Site Characteristics

The contaminants of concern (COCs) identified for the Site are BTEXs and PAHs in the soil and groundwater. Sources of COCs at FMGP sites typically are associated with gas holders, tar wells, and oil tanks. The likely sources of COCs at the Site include Gas Holders A and B, a tar well, and two oil tanks. Three USTs installed after the Site ceased operations could also be sources of COCs. Although EPA typically does not have the authority to address releases of petroleum from USTs, potential releases from the USTs would have commingled with COCs released at the Site, and could act as a co-solvent of COCs which could contribute to and exacerbate migration of the coal tar contamination.

EPA conducted Site Inspection (SI) sampling activities on February 24-27, 1997. The results of groundwater, near-surface and subsurface soil, and sediment samples indicated elevated volatile and semi-volatile organic compounds (VOCs and SVOCs) throughout the Site. Soils on the eastern portion of the Site contained up to 2,273 milligrams per kilogram (mg/kg) carcinogenic PAHs and 8,506 mg/kg total PAHs. Elevated VOC and PAH levels were found in soil samples taken as deep as 16 feet below ground surface (bgs) in the area of the former gas holder. Elevated VOCs, SVOCs, and cyanide levels were found in samples taken from the Le Mars municipal well #8, the drainage ditch, Willow Creek, and nearby residential surface and subsurface soils, although not above the Maximum Contaminant Levels (MCLs).

The EPA conducted an Expanded Site Inspection (ESI) in 2000 to: (1) delineate soil contamination detected at the Site; (2) evaluate the threat posed by contaminated soil at the Site to groundwater in the surficial, buried channel and Dakota Aquifers; (3) identify the effect of on Site contamination on local surface water features; and (4) evaluate the threat posed to both human health and the environment. The ESI included the installation of 12 groundwater monitoring wells (MW), and the sampling of soil, sediment, and surface water. Analysis of samples from the MW indicated that VOCs, including benzene and toluene, PAHs and cyanide have migrated off-Site in the shallow aquifer. Sediment samples taken from the drainage ditch indicated elevated PAH levels, including benzo(a)pyrene, and indeno(1,2,2-cd)pyrene; VOC levels, including benzene, toluene, ethyl benzene, and xylene; and cyanide levels were detected in surface and subsurface soils on Site as well as at an adjacent residence. The most highly contaminated soil samples were collected from locations where FMGP structures, such as the gasometer, gas holder and tar well, were located.

A potential exposure risk exists for on-Site workers and nearby residents. Elevated levels of PAHs and cyanide were identified in soils at levels above health-based benchmarks and/or background concentrations. Based on analytical data, contamination has migrated off Site in the shallow aquifer approximately 2,700 feet northwest with the potential to travel through the marginal aquitards to the Le Mars municipal water supply. A human health risk may also exist for individuals that fish Willow Creek.

Water in the vicinity of Le Mars is derived from three aquifers: a surficial aquifer, the buried channel aquifer, and the Dakota formation sandstone aquifer. None of the samples from the buried channel or Dakota aquifers exceeded preliminary remediation goals (PRGs) for the COCs.

A benzene plume in the surficial aquifer emanates from the Site and is about 1,600 feet long by 650 feet wide. The direction of flow is toward the west-northwest, which is about the same direction as the groundwater flow. The highest benzene concentration detected in the plume is 160,000 micrograms per liter ( $\mu$ g/L) at Monitoring Well (MW) 2, which is near the eastern end. The western (or down gradient) end of the plume terminates just beyond MW-3I, where the benzene concentration is 3,600  $\mu$ g/L. The MW-3I is about 1,000 feet west-northwest of the Site.

Municipal Wells (Mun. Well) 4 and 8 are about 1,800 feet northwest of the Site. These wells were sampled on five separate occasions between 1997 and 2000. Site-related contaminants were detected in Mun. Well 4 during the January 2000, sampling event. Contaminants detected in Mun. Well 4 included acenapthlyene (0.010 μg/L), naphthalene (0.084 μg/L) and phenanthrene (0.013 μg/L). Site-related contaminants were detected in Mun. Well 8 during the February 1997, August 1997, and January 2000, sampling events. Contaminants detected in Mun. Well 8 in February 1997, included benzo(a)pyrene (B(a)P) (0.012 μg/L) cyanide (26 μg/L), ethylbenzene (0.5 μg/L) and total xylenes (4.0 μg/L). Contaminants detected in Mun. Well 8 in August 1997, included B(a)P (0.0018 μg/L), ethylbenzene (5.0 μg/L) and total xylenes (34 μg/L). Contaminants detected in Mun. Well 8 in January 2000, included acenapthlyene (0.22 μg/L), naphthalene (0.14 μg/L), and phenanthrene (0.018 μg/L). None of the contaminants detected in the Mun. Wells exceeded the MCL.

Site-related contaminants have been detected in groundwater from the surficial aquifer. All of these MCL exceedances occurred at sampling locations within the benzene plume described above. Cyanide was detected above its MCL of 200 µg/L at four sampling locations. Sampling Location 111 is the only off-Site location where the cyanide MCL was exceeded and that location is about 80 feet north of the Site. Other contaminants that were detected off Site in groundwater above their respective MCLs included toluene, styrene, and B(a)P.

Four sampling intervals (0 - 2, 6 - 14, 14 - 20, and deeper than 20 feet bgs) were used to depict the extent of COCs in soil. All samples collected from the 0- to 2-feet-bgs interval are considered to be surface soil samples. The PRGs for benzene and total B(a)P equivalents in surface soil are 15,000 micrograms per kilogram (µg/kg) and 2,900 µg/kg, respectively.

Benzene contamination detected in the 0 - 2-feet bgs interval did not exceed the PRG at any of the sampling locations. The highest benzene concentration (262 µg/kg) was detected at Sampling Location 6, which was at the northwestern corner of the 12,000-gallon UST and inside of the footprint of Gas Holder A. In the 6-14 feet bgs interval, the highest benzene concentrations were detected in and around Gas Holder A and the 12,000-gallon UST. The contamination plume above the PRG is mostly within the Site boundary. Benzene concentrations

ranged between 120,000 and 307,000 µg/kg at Sampling Locations 5, 7, BH-1, and BH-5. Those samples were collected about 10 feet bgs or deeper. Benzene concentrations at most of the other sampling locations within the plume were about 3 to 4 orders of magnitude below those levels.

In the 14 - 20 bgs-interval, the highest benzene concentrations were again detected near Gas Holder A. The contamination plume above the PRG covers most of the central portion of the Site and extends off-Site to the northwest, about 200 feet from the Site boundary. Benzene was detected at Sampling Location 3 and BH-3 at concentrations of 152,000 and 160,000 µg/kg, respectively. Benzene was also detected at concentrations an order of magnitude below those levels from the sampling location near the 12,000-gallon UST, the tar well, and Gas Holder B. Most of the samples in this interval were collected at 18 - 20 feet bgs.

In the sampling interval under 20 feet bgs, the highest benzene concentration (31,000  $\mu$ g/kg) was detected about 100 feet south of the Site at Sampling Location 25, which was about 38 feet bgs. The highest on-Site benzene concentration (9,730  $\mu$ g/kg) was detected at Sampling Location 6, which was about 28 feet bgs. This sampling location was below Gas Holder A. The data is not sufficient to develop a reasonable plume to show benzene concentrations above the PRG.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant, or Contaminant

There has been a release of hazardous substances into the environment from the Site. Both groundwater and soil have been affected by the release of the coal tar wastes over an extended period of time. The compounds PAH and BTEX have been confirmed and documented as posing a human health risk to the citizens of Le Mars, Iowa.

- 5. National Priorities Listing (NPL) Status
  - This Site is not on, nor has it been proposed for, the NPL.
- 6. Maps, Pictures and Other Graphic Representations

None

#### B. Other Actions to Date

1. Previous Actions

Indoor Air Sampling: The EPA evaluated the potential impacts of contaminants in groundwater as a potential source of indoor air contamination. The EPA reviewed groundwater sampling locations and analytical data to identify a location that was in a residential area and showed elevated concentrations of a VOC such as benzene, toluene,

ethylbenzene or xylene. The location was northwest of the Site in an area that is a mix of residential and commercial buildings. It was decided to use benzene as the COC because it is carcinogenic and would be expected to be the risk driver, if an unacceptable risk was identified. The Johnson and Ettinger Model (EPA 2000c) was used to assess potential impacts of groundwater concentrations on indoor air. This model has a screening module that is based on a series of default assumptions and estimates indoor air concentrations based on groundwater concentrations.

The results of the model noted is that the excess lifetime cancer risk from benzene in groundwater was 2 E-06. This cancer risk is within the acceptable risk range used by EPA to evaluate potential risks at Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites. Indoor air and soil gas sampling data from the removal assessment sampling effort indicate an incomplete vapor intrusion exposure pathway from COC-contaminated groundwater in the surficial aquifer to indoor air in overlying structures.

#### 2. Current Actions

In 2003, EPA completed an Engineering Evaluation/Cost Analysis (EE/CA) to identify proposed removal action alternatives for benzene and total B(a)P equivalents-contaminated soil and groundwater at the Site. See the Engineering Evaluation/Cost Analysis dated June 30, 2003, for a detailed description of the alternatives evaluated and EPA's proposed removal alternative. A 30-day public comment period was held, and on August 18, 2003, EPA held an availability session at the Le Mars Public Library to discuss the EE/CA and EPA's proposed removal alternative. Several city officials and local residents attended the session to discuss the cleanup alternatives. No comments were received during the public comment period.

#### C. State and Local Authorities' Roles

#### 1. State and Local Actions to Date

In November 1990, the city of Le Mars collected subsurface soil samples from two 20-foot-deep soil borings in the area of the fuel USTs to satisfy Iowa UST liability insurance requirements. The total organic hydrocarbons detected in some samples exceeded the Iowa Department of Natural Resources (IDNR) guideline of 100 micrograms per gram. On the basis of those sample results, IDNR requested that the city of Le Mars conduct a pressure test of the USTs during December 1990. The pressure test results indicated that no leaks had occurred from the USTs.

The Iowa Department of Public Health (IDPH) prepared a Health Consultation based on the information provided in the SI Report. The document's objective was to determine if the Site poses a public health hazard. This document evaluated the data and provided information about the potential public health and children's health impact resulting from exposure to on- and offSite contaminated media. The consultation considered the following media and exposure pathways:

- Soil through ingestion and dermal contact
- Air through inhalation of vapors and dust re-suspended from media containing contamination
- Groundwater through ingestion and dermal contact

Based on the limited number of soil samples, the report stated that adverse health effects are not expected to occur. It noted that although the nearest residence is 50 feet to the south, inhalation of vapors and re-suspended dust from the Site is unlikely and VOCs detected in surface and subsurface soil samples and groundwater do not pose a health risk. The report also noted that Site-related constituents have impacted Mun. Well 8, however, at this time, concentrations are below levels of concern. It also concluded that based on available data, it is unlikely that children were exposed to unacceptable concentrations of Site constituents in the past. The assumption was that in the future, children would most likely be exposed to the public drinking water supply through the municipal well system and if contamination in the plume increases over time, exposure to unacceptable levels of contamination may occur.

The IDPH also prepared an expedited risk assessment for the Site based on the information provided in the SI Report and PA Report. The risk assessment followed EPA risk assessment protocols and also calculated PRGs at a cancer risk level of 1 E-06. Lead concentrations at the Site were evaluated using the Integrated Exposure Uptake Biokinetic Model for Lead in children. The risk assessment identified the following exposed populations and media:

- Current on-Site workers to surface soils
- Future on-Site workers to surface soils and groundwater
- Future on-Site residents to surface soils and groundwater
- Future utility workers to subsurface soils and groundwater
- Future construction workers to subsurface soils and groundwater

The risk assessment identified the following constituents as chemicals of potential concern (COPC):

- Surface soils benzo(a)anthracene, B(a)P; benzo(b)fluoranthene, benzo(k)fluorene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene
- Subsurface soils arsenic, benzene; benzo(a)anthracene, B(a)P, benzo(b)fluoranthene, benzo(k)fluorene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene

Groundwater - 2-methylnaphthalene, 2-methylphenol, 4-methylphenol; 2,4-dimethylphenol, arsenic, barium, benzene, B(a)P, cadmium, cyanide, ethylbenzene, iron, lead, manganese, naphthalene, styrene, and toluene

The risk assessment used EPA Risk Assessment Guidance for Superfund (1989) to calculate potential risk levels for the various exposure pathways and COPCs. The report stated that inhalation risks from contaminated soils is negligible for all receptors assessed. The cancer risk for the current land use is 3.4 E-05, which may require consideration. The report concluded that subsurface soils pose an insignificant health risk to future utility and construction workers. It identified a significant risk for future residents from exposure to surface soils, with B(a)P as the main risk driver. The report also identified a significant risk from exposure to groundwater at the Site, and benzene and B(a)P were the main cancer risk drivers for that exposure media. Benzene and naphthalene are the main noncancer risk drivers for that media. The report also noted that benzo(a)anthracene, B(a)P, benzo(b)fluoranthene, benzo(k)fluorene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, 2-methylnaphthalene, carbazole, benzene, toluene, ethylbenzene, and styrene were detected in concentrations exceeding EPA default soil screening levels for contaminant migration to groundwater.

A revised risk assessment was performed by the IDPH and published on August 5, 2002. The revised risk assessment was based on data provided in the PA and SI reports as well as data from the ESI Report. EPA Risk Assessment Guidance for Superfund (RAGs), Volume 1, Human Health Evaluation Manual, Parts A, B and D were followed for the assessment and preliminary goal calculations. EPA generally considers total carcinogenic risk which exceeds 1 in 10,000 (1.0E-04) to be unacceptable and require remediation. The revised risk assessment concluded that the risks posed to current and future on-Site workers are unacceptable. Specifically, the carcinogenic risks are the following:

- On-Site Workers Surface Soil 1.20E-04 (carcinogenic)
- On-Site Workers Groundwater 5.2E-03 to 3.8E-02 (carcinogenic)

#### 2. Potential for Continued State/Local Response

On February 27, 2003, the city of Le Mars notified EPA of its plans to conduct water system improvements. Specifically, the city intends to discontinue use of Mun. Well 4 and 8 as potable water supply sources to the citizens of Le Mars. The city may also participate in conducting portions of EPA's selected removal action. Otherwise, there are no future response actions that are anticipated from state or other local authorities.

# III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

#### A. Threats to Public Health or Welfare

The present Site conditions pose an imminent and substantial endangerment to public health or welfare, which meets the criteria for response actions under 40 C.F.R. 300.415(b) of the National Contingency Plan (NCP) as follows:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [300.415 (b)(2)(i)]

The EPA investigations have documented the presence of extensive PAHs and BTEX contamination on Site. All of the compounds listed are hazardous substances as defined by CERCLA. Future and current on-Site inhabitants, workers and nearby residents are at risk for exposure, and on-going contamination of surface water, sediment, soils and groundwater occurs via surface water erosion and leaching. The Site is currently utilized by the city of Le Mars Public Works Department which is open to the public and currently has unrestricted access. Hazardous substances have been determined to be in the soil and groundwater at the Site.

The adverse human health effects of the hazardous substances found on Site are summarized below:

Benzene - Benzene is a widely used chemical formed from both natural processes and human activities. Breathing very high levels of benzene can result in death, cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness; long-term benzene exposure causes effects on the bone marrow and can cause anemia and leukemia. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death.

PAHs, including. Benzo(a)pyrene, Benzo(a)anthrazene, Benzo(b)fluorothene - PAHs are a group of over 100 different chemicals formed during the incomplete burning of coal, oil and gas garbage or other organic substances like tobacco or charbroiled meat. Some people who have inhaled or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they inhaled air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

Actual or potential contamination of drinking water supplies or sensitive ecosystems. [300.415(b)(2)(ii)]

Analysis of samples from MW on or around the Site indicate that VOCs, including benzene and toluene, PAHs and cyanide have migrated off Site in the shallow aquifer. A potential exists for the contamination that has migrated off Site to travel through the marginal aquitards to the Le Mars municipal water supply, which is located in the deeper aquifer.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate. [300.415 (b)(2)(iv)]

Analytical results obtained from EPA sampling efforts have confirmed the presence of hazardous substances that health officials have determined to pose a carcinogenic risk in surface soils for both current and future on-Site workers. Both benzene and various PAHs have been identified in surface and subsurface soil.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415 (b)(2)(v)]

High levels of hazardous substances exist largely at or near the surface that may migrate due to upcoming seasonal weather conditions. Also, significant groundwater contamination has been documented and has migrated off Site that can be affected by seasonal rainy periods.

The availability of other appropriate Federal or State response mechanisms to respond to the release [300.415 (b)(2)(vii)].

There does not appear to be any other federal, state, or local mechanism to respond to this environmental threat.

#### B. Threats to the Environment

The threats to the environment include both contaminated soil and groundwater. Both Willow Creek and the Floyd River are also threatened by the hazardous substances.

#### IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

The IDPH reviewed the EE/CA and commented on August 6, 2002, that a "no action alternative" would not effectively protect human health for current or future exposure scenarios.

#### V. PROPOSED ACTIONS AND ESTIMATED COSTS

#### A. Proposed Actions

#### 1. Proposed Action Description

The following listed steps are planned during the removal action to alleviate the human health threat posed by the Site. The estimated duration of the removal action is three months.

- a. Air monitoring of removal action construction
- b. UST and product removal
- c. Excavation of the on-Site soil source area
- d. Off-Site thermal treatment of highly contaminated soil
- e. Off-Site disposal of nonhazardous soil and debris in a Resource Conservation and Recovery Act (RCRA) Subtitle D Landfill
- f. Backfilling with off-Site soil and Site restoration

The excavation depth will extend to the water table surface, which is estimated at 14 feet bgs, based on historical data from on-Site MW-1, MW-2 and MW-3. Contaminated soil will be excavated beneath one on-Site building. A hole will be cut into the concrete floor in the main street department building and highly contaminated soil, where a subsurface tar well currently exists will be excavated. Some re-enforcement of existing buildings will likely occur since the planned excavation will be deep, very close to the structures, and an active rail line. Contaminated soil will be excavated under the sand storage area, which is not considered to be a building. If other subsurface structures are identified that are at slightly deeper depths that contain coal tar wastes, that contaminated soil will also be excavated. On the basis of sampling data and the above-referenced restrictions on the vertical and horizontal extent of excavation, it is estimated that the volume of contaminated soil to be excavated would be about 11,000 cubic yard (yd³).

Of the volume of soil to be excavated, nonhazardous soil would be disposed of at a RCRA Subtitle D Landfill, while highly contaminated soil might be treated off Site at a thermal treatment facility. This will depend on the analytical results from the contaminated stockpiles that will identify if the soil can be disposed of in a subtitle D landfill or possibly other blending or mixing options will be utilized to allow the soil to eventually be sent to a subtitle D landfill. All excavated soil would be staged in 500-yd<sup>3</sup> stockpiles, based on a protocol established to reduce co-mingling nonhazardous soil with highly contaminated soil. This protocol would consider several factors, including existing analytical data, proximity to a contamination source, relationship to the watertable surface and visual contamination. One five-point composite sample from each 500-yd<sup>3</sup> stockpile would be analyzed for PAHs, cyanide, and Toxic Characteristic Leachate Procedure (TCLP) for benzene to determine whether the soil is nonhazardous or highly contaminated.

Confirmation sampling of the excavation would be conducted to confirm that soil containing a COC above its PRG had been removed. However, no confirmation sampling would be required on the bottom of the excavation or on excavation walls adjacent to a property boundary or building. On completion of excavation activities, confirmation sidewall samples would be analyzed to verify that the PRGs for COC-contaminated soil had been satisfied. Sidewall confirmation sampling would be performed, using about 50-foot centers, along the excavation perimeter. The total number of samples would vary, depending on the size of the actual excavation. Samples would be collected at the maximum unsaturated excavation depth. Based on this information, it is appropriate to establish remediation goals that would be ensure that subsurface soil contamination be removed to protect groundwater from further contamination.

#### The following listed PRGs will be used as clean up goals for the removal action:

Hazardous Substance	Surface Soils (µg/kg)	Subsurface Soils (µg/kg)
benzo(a)pyrene	2,900	20,000
benzene	15,000	67

#### 2. Contribution to Remedial Performance

The proposed action will mitigate the direct contact threat posed by contaminated materials. No further remedial actions are anticipated.

#### 3. Description of Alternative Technologies

Alternative technologies such as thermal desorption are being considered as a viable option. Also, several technologies were considered while performing the EE/CA including heat enhanced vapor extraction.

#### 4. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA was completed on June 30, 2003. A 30-day public comment period was provided to the citizens of Le Mars, Iowa. A public availability session was held during the middle of the comment period in Le Mars to provide information about EPA's proposed removal action alternative and encourage public participation in the process. No comments were received during the public comment period.

#### 5. Applicable or Relevant and Appropriate Requirements (ARARs)

The NCP, 40 C.F.R. Section 300.415(i), provides that fund-financed removal actions under Section 104 of CERCLA shall, to the extent practicable considering the exigencies of the situation, attain ARARs under federal environmental, state environmental, or facility-citing laws.

The following are the federal and state ARARs identified for this removal action:

Action-specific ARARs are typically technology, or activity-based requirements applicable to actions involving special categories of wastes. Action-specific requirements are usually triggered by certain remedial activities that may be a component of the overall remedial strategy. Action-specific requirements do not in themselves determine site-specific remedial actions; rather, they indicate the way in which a selected alternative must be achieved.

Solid Waste Requirements: Solid waste (such as nonhazardous contaminated waste soil and debris generated at the site through industrial activities) is defined and identified under the Iowa Administrative Code (IAC) 567, Chapters 100 to 219, and is subject to the requirements of RCRA Subtitles C and D and the provisions of the Iowa solid waste regulations. These regulations require that persons generating, collecting, transporting, storing, processing and disposing of solid waste comply with notification and permitting requirements for facilities and landfills under the Iowa solid waste regulations. IAC 567-102.15(2) contains state regulations for obtaining special waste authorizations. The application for a special waste authorization must include the following information: chemical composition of the waste, physical form of the

waste, volume of the waste to be disposed of, and any other information requested by IDNR. The TCLP test results will need to indicate that the level of benzene in the waste does not exceed 0.5 milligrams per liter (mg/L). IAC 567-109.5(2)d prohibits disposal of contaminated soil if total PAH levels exceed 1,600 parts per million (ppm), total carcinogenic PAH levels exceed 200 ppm or total cyanide levels exceed 1,000 ppm for compounds listed in that citation. In addition, IAC 567-109.5(2)b prohibits land disposal of waste that meets the criteria for characteristic hazardous waste pursuant to 40 CFR Part 261, Subpart C.

Hazardous Waste Requirements: The RCRA allows any state to administer and enforce a hazardous waste program under federal authorization. The Hazardous and Solid Waste Amendments of 1984 expanded the scope of RCRA by adding new corrective action requirements, land disposal restrictions (LDR) and technical requirements. Because Iowa does not have a hazardous waste program, there are no state-specific regulations to be met for management of hazardous wastes generated at the Site. Generators of hazardous waste in Iowa must comply with the rules set forth in 40 CFR Parts 261 and 262. These regulations establish requirements for hazardous waste determination, EPA generator ID, waste manifests and shipments, pre-transport activities and generator recordkeeping and reporting activities. Certain wastes that are generated at the Site may be subject to the LDRs that are described in 40 CFR Part 268.30. On March 13, 2002, 40 CFR Part 261.24 was revised to state that the TCLP may not be used for determining whether MGP waste is hazardous under RCRA.

<u>UST Requirements</u>: The RCRA regulations include requirements for removal of USTs. The IAC 567-Chapter 135 includes state ARARs applicable to corrective action for USTs. The USTs that have been identified as having once existed at the Site include a 12,000-gallon, gasoline-containing UST and a 2,000-gallon, diesel-containing UST. If the USTs are still present at the Site and must be removed as part of the removal action, then federal and state UST ARARs will be applicable. IAC 567-135.8(3) requires that soil and groundwater releases of petroleum regulated substances must always be analyzed for the presence of BTEX. In addition, if the release is suspected to include any petroleum-regulated substances other than gasoline or gasoline blends, or if the source of the release is unknown, the samples must be tested for the presence of total extractable hydrocarbons.

A tar well, two gas holders, and two oil tanks were identified as having once been at the Site in conjunction with manufactured gas plant operations. Although these units are referred to as USTs throughout this report, they do not meet the definition of an UST in the above-referenced regulations, because they were taken out of service before 1974. Therefore, UST requirements are not applicable to those units.

Air Quality Requirements: Under the provisions of the Clean Air Act sources of regulated emissions must comply with the regulations, air quality standards, and emission limitations. However, in accordance with 40 CFR Part 300.400 (e), emissions from on-site CERCLA response actions, which are conducted pursuant to CERCLA Sections 104, 106, 120, 121 and 122 are exempt from air quality permitting requirements.

An on-Site unit may be defined as a major source if it has the potential to emit 10 tons per year or more of any toxic air pollutant (TAP) or 25 tons per year or more of any combination of TAPs. Applicable RCRA regulations under 40 CFR Part 264, Subparts O and X and 40 CFR Part 265, Subparts O and P, must be met.

Generation of airborne particulate matter from excavation of contaminated soil, earth moving and regrading that will occur during remediation must be evaluated under IAC 567-23.3(2)c. These regulations call for the control of fugitive emissions by taking measures to prevent particulate matter and suspended particulate matter from becoming airborne.

Water Quality Requirements: The Clean Water Act (CWA) (33 U.S. Code 1251 to 1376), as amended by the Water Quality Act of 1987 (Public Law 100-4-103), provides authority for each state to adopt water quality standards designed to protect beneficial uses of each water body and requires states to designate uses for each water body. For removal actions at the Site involving construction and excavation of contaminated soil, engineering controls designed to prevent discharges that may affect the water quality of nearby surface waters must be implemented. Under the provisions of the CWA, a National Pollutant Discharge Elimination System (NPDES) permit establishes requirements and procedures for permitting, enforcement, monitoring and surveillance and spill control activities. In 1992, IDNR received authorization from the EPA to issue general permits for storm water discharges. The IDNR continues issuing NPDES permits to all storm water discharges subject to federal permit requirements. A specific NPDES permit will be required for construction and remedial activities at the Site. Even if no permit were to be required, discharges would still be required to meet storm water and wastewater discharge monitoring requirements established by the CWA.

U. S. Department of Transportation (DOT) Requirements: As required by DOT (49 CFR Part 171), hazardous materials (such as hazardous wastes and environmentally hazardous substances that may be transported off of the Site) cannot be transported during interstate and intrastate commerce, except in accordance with the requirements of Subchapter C, Hazardous Material Regulations of 49 CFR Part 171. Hazardous wastes or environmentally hazardous substances transported within the state must comply with applicable packaging, labeling, marking, and placarding requirements of 49 CFR Part 171 Subpart C Hazardous Waste Transporters. Truck operators also must be in compliance with applicable DOT operational requirements, specifically, driver duty hours and time log requirements, as described in DOT Federal Motor Carrier Safety Administration, 49 CFR Part 35.

Worker Safety Requirements: Employers are required to comply with all applicable occupational safety and health standards promulgated under Section 5 of the Occupational Safety and Health Act. The requirements include the Occupational Safety and Health Administration (OSHA) standards under 29 CFR Part 1910.120 that were developed to maintain the health and safety of employees involved in hazardous waste operations or hazardous waste operations and emergency response. These standards are applicable to employees engaged in cleanup activities at designated CERCLA sites regulated under 40 CFR Part 300, Subpart F; employees engaged in

RCRA closure activities conducted under 40 CFR Part 265, Subpart G; employees at those sites similar to CERCLA sites that have been designated for cleanup by a state or local agency; employees at RCRA treatment, storage and disposal facilities; and employees engaged in emergency response actions at all sites. Because excavation- and construction-related activities at the Site may involve the potential for workers to be exposed to hazardous working conditions that may include toxic and hazardous substances and hazardous wastes, any on-site remedial actions must be performed in accordance with applicable OSHA standards.

The Endangered Species Act, the National Historic Preservation Act, and the Archaeological and Historic Preservation Act also are potential ARARs to be considered. Based on the available information, the Site is not in an area affected by these acts.

Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that, when applied to site-specific conditions, result in the establishment of numerical values. These values establish the acceptable amount or concentration of a chemical that may be found in, or discharged to, the environment (EPA 1988b). Potential exposure pathways for contamination include air, soil and groundwater.

The following chemical-specific ARARs and TBC criteria have been identified:

- <u>EPA Region 9 PRGs (EPA 2000b)</u>. These values are potential TBC criteria for evaluating contamination at the Le Mars Site.
- EPA's National Primary and Secondary Drinking Water Regulations (40 CFR
  Parts 141 and 143). Assuming that water beneath and near the Site is a potential
  drinking water source, CERCLA requires that MCLs for inorganics and organics
  generally be considered "relevant and appropriate" for groundwater remediation.
- OSHA Permissible Exposure Limits (PEL). These values are potential ARARs for evaluating occupational exposure to airborne contaminants in the work place. They typically are expressed as time-weighted average (TWA) concentrations that must not be exceeded during any 8-hour work shift of a 40-hour work week. PELs would be applicable to site workers during implementation of potential response actions.
- National Institute for Occupational Safety and Health-recommended Exposure Levels (REL) and Short-term Exposure Limits (STEL). These values are similar to OSHA PELs in that they provide guidance on worker exposure to airborne contaminants, however, unlike PELs, they are not legally enforceable. They are TBC criteria for air emissions. RELs are expressed as TWA concentrations for up to a 10-hour work day during a 40-hour work week. A STEL is a 15-minute TWA exposure that should not be exceeded at any time during a work day.

The IDNR has been notified of this non-time critical removal action. Additional state ARARs will be complied with as technically feasible.

#### 6. Project schedule

The non-time critical removal action is scheduled to commence in the late fall or winter of 2003 and take approximately 3 months to complete depending on the weather conditions in Northwestern Iowa.

#### B. Estimated Costs

The costs associated with the removal action are estimated as follows:

#### Extramural Costs:

Removal Clean-Up Contractor Costs	\$1,600,000
START Contractor	200,000
Contingency (10%)	180.000
Total Extramural Total	\$1,980,000

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Project Ceiling for this removal action.

# VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Without approval of the removal action in this Action Memorandum, the FMGP hazardous substances will continue to pose a threat to those who may come into contact with the contaminated media.

#### VII. OUTSTANDING POLICY ISSUES

None

#### VIII. ENFORCEMENT

There is an enforcement addendum for this Site. For NCP consistency purposes, it is not part of this memorandum.

#### IX. RECOMMENDATION

This decision document represents the selected removal action for the Le Mars Coal Gas

Plant Site, in Le Mars, Plymouth County, Iowa. This action was developed in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 and is not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Conditions at the Le Mars Site meet the NCP section 300.415 (b) for a removal action and I recommend your approval of the proposed removal action. The total removal project ceiling, if approved, will be \$1,980,000. This amount comes from the Regional Removal Allowance.

Occilia Tapia, Acting Director Superfund Division

Attachments: Cost Enforcement Addendum

Confidential Enforcement Addendum



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### REGION VII 901 NORTH 5TH STREET KANSAS CITY, KANSAS 66101 1 2 MAY 2004

## ACTION MEMORANDUM AMENDMENT

SUBJECT: Request for a Change in the Scope of Work for the Non-Time-Critical Removal

Action at the Le Mars Coal Gas Plant Site, Le Mars, Plymouth County, Iowa

FROM: Daniel'J. Garvey, Un-Scene Loordinator

Enforcement/Fund-Lead Removal Branch

THRU: Kenneth S. Buchholz, Chief /

Enforcement/Fund-Lead Removal Branch

TO: Cecilia Tapia, Director

Superfund Division

CERCLIS ID: IA0001032556

SITE ID: O7YH

CATEGORY OF REMOVAL: Non-Time-Critical

NATIONALLY SIGNIFICANT: No

#### I. PURPOSE

The purpose of this Amendment is to request a no-cost change in the previously approved scope of work for the non-time-critical removal action at the Le Mars Coal Gas Plant Site (Site) located in Le Mars, Plymouth County, Iowa. This proposed Amendment will allow all of the contaminated soil to be sent to an off-site thermal treatment facility. The Site is a former manufactured gas plant (FMGP). The U.S. Environmental Protection Agency (EPA) is recommending the removal of coal tar waste containing benzene, toluene, ethylbenzene, xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs) from the Site area. In an effort to protect groundwater/drinking water, the focus of this removal action will be to excavate contaminated soil down to 14 feet and if other coal tar-contaminated subsurface structures are identified, at deeper depths, that heavily contaminated soil will also be excavated. In these situations, the excavation depth will not exceed 18 feet. In addition, Gas Holders A and B, the tar well, one 12,000-gallon underground storage tank (UST) and one 2,000-gallon UST will also be removed. The estimated cost of this removal action is \$1,980,000.

#### II. SITE CONDITIONS AND BACKGROUND

#### A. Site Description

1. Background

See previously approved Action Memorandum.

2. Physical Location

See previously approved Action Memorandum.

3. Site Characteristics

See previously approved Action Memorandum.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant, or Contaminant

See previously approved Action Memorandum.

5. National Priorities Listing (NPL) Status

This Site is not on, nor has it been proposed for, the NPL.

6. Maps, Pictures and Other Graphic Representations

None

#### B. Other Actions to Date

1. Previous Actions

See previously approved Action Memorandum.

2. Current Actions

The removal action is currently on-going. As stated in the original Action Memorandum, soils will be excavated down to the water table which is estimated at 14 feet below ground surface (bgs). Currently, the EPA has not encountered the water table when excavating down to 14 feet bgs due to seasonal fluctuations. In an effort to protect groundwater/drinking water, the focus of this removal action will be to excavate contaminated soil down to 14 feet and if other coal tar-contaminated subsurface structures are identified, at deeper depths, that heavily contaminated soil will also be excavated. In those instances, the excavation depth will not exceed 18 feet

#### C. State and Local Authorities' Roles

- State and Local Actions to Date
   See previously approved Action Memorandum.
- Potential for Continued State/Local Response
   See previously approved Action Memorandum.

# III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

- A. Threats to Public Health or Welfare

  See previously approved Action Memorandum.
- B. Threats to the Environment

  See previously approved Action Memorandum.

#### IV. ENDANGERMENT DETERMINATION

See previously approved Action Memorandum.

#### V. PROPOSED ACTIONS AND ESTIMATED COSTS

- A. Proposed Actions
  - 1. Proposed Action Description

The removal activities described by the previously approved Action Memorandum will continue. The only significant change will be that all of the contaminated soil will be sent to an off-site thermal treatment unit instead of sending the non-hazardous contaminated soil to a Subtitle D landfill and the highly contaminated soil shipped and treated off-site at a thermal treatment facility.

This change is needed due to the EPA being denied at three different Iowa Subtitle D landfills during the first three weeks of the on-going removal action. The unexpected denials are based on the individual landfills preference only and are not based on Iowa waste disposal regulations, RCRA disposal criteria or any accumulated stockpile analytical results. There is one landfill in Jackson, Nebraska, that is willing to accept the soil, but the Nebraska Department of Environmental Quality (NDEQ) requires a public comment period that would result in the Site demobilizing at significant cost to the government and would also be disruptive to the city of Le Mars Street Department personnel who have temporarily re located from the Site proposition.

EPA prefers to transport and thermally treat all of the contaminated soil, as opposed to disposal in a Subtitle D landfill because thermal treatment represents a more permanent remedy.

Confirmation sampling of the excavated sidewalls will be conducted to confirm that soil containing a contaminant of concern (COC) above its preliminary remedial goal (PRG) has been removed. Confirmation sampling will also be required on the bottom of the excavation areas, but will only serve as a Site record. There will not be any confirmation sampling on excavation walls adjacent to a property boundary or buildings. Confirmation sidewall samples would be analyzed to verify that the PRGs for COC-contaminated soil have been satisfied. Sidewall confirmation sampling would be performed, using about 50-foot centers, along the excavation perimeter. The total number of samples would vary, depending on the size of the actual excavation. Samples would be collected at the maximum unsaturated excavation depth.

Based on this information, it is appropriate to establish remediation goals that would ensure that sub-surface soil contamination be removed, to the maximum extent practicable, to protect groundwater from further contamination.

The following listed PRGs will be used as clean up goals for the removal action (PRGs are given in micrograms per kilogram  $[\mu g/kg]$ ):

Hazardous Substance	Surface Soils (µg/kg)	Subsurface Soils (µg/kg)
benzo(a)pyrene	2,900	20,000
benzene	15,000	67

#### 2. Contribution to Remedial Performance

The proposed action will mitigate the direct human contact threat posed by surface-contaminated materials and minimize threats to groundwater/drinking water. No further remedial actions are anticipated.

#### 3. Description of Alternative Technologies

Alternative technologies such as thermal desorption were considered and plan on being implemented. Also, several other technologies were considered while performing the engineering evaluation/cost analysis including heat enhanced vapor extraction.

4. Engineering Evaluation/Cost Analysis (EE/CA)

See previously approved Action Memorandum.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

See previously approved Action Memorandum.

#### 6. Project schedule

This non-time-critical removal action is scheduled to be completed by July 31, 2004.

#### B. Estimated Costs

The costs associated with the removal action are estimated as follows. There are not any changes with these costs as stated in the original Action Memorandum. By accepting all of the contaminated soil as proposed, the thermal treatment sub-contractor has lowered the cost per ton.

#### Extramural Costs:

Removal Clean-Up Contractor Costs	\$1,600,000
START Contractor	200,000
Contingency (10%)	180,000
Total Extramural Total	\$1,980,000

The EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Project Ceiling for this removal action.

# VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will continue to pose a threat to those who may come into contact with the contaminated media.

#### VII. OUTSTANDING POLICY ISSUES

None

#### VIII. ENFORCEMENT

See previously approved Action Memorandum.

#### IX. RECOMMENDATION

This decision document represents the selected removal action for the Le Mars Coal Gas Plant Site, in Le Mars, Plymouth County, Iowa. This action was developed in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 and is not inconsistent with the NCP. This decision is based on the administrative record for the Site.

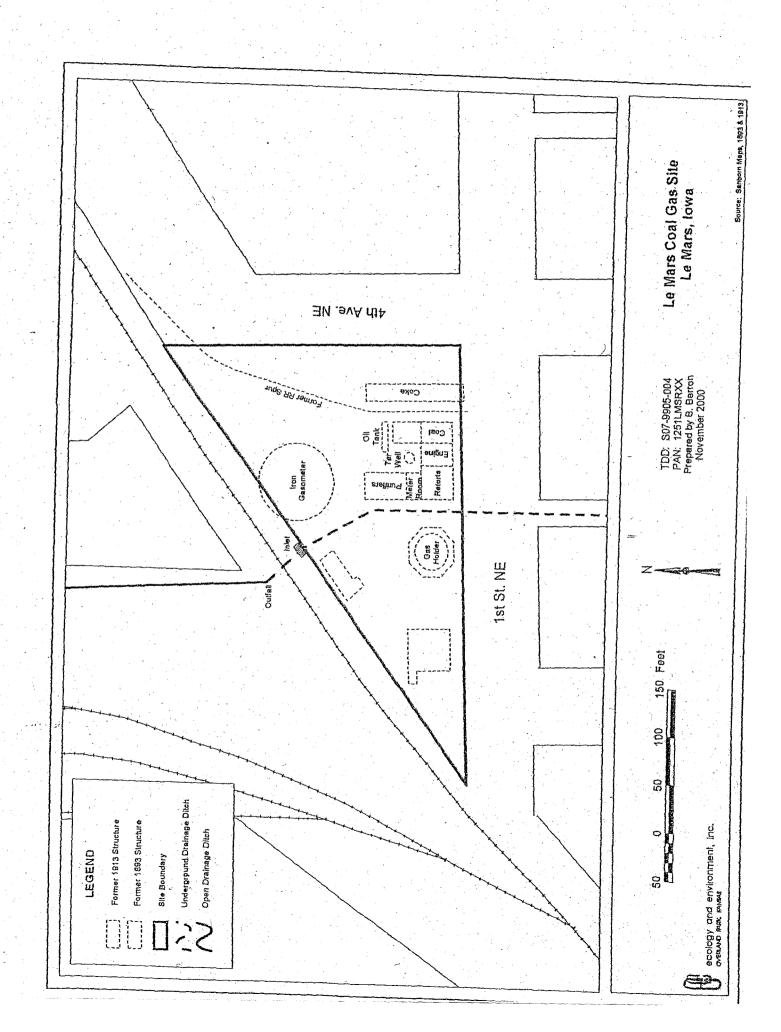
Conditions at the Le Mars Coal Gas Plant Site meet the NCP section 300.415 (b) for a removal action and I recommend your approval of the proposed removal action Amendment. The total removal project ceiling, if approved, will be \$1,980,000. This amount comes from the Regional Removal Allowance.

Cecilia Tapia, Director Date
Superfund Division

Attachment: Action Memorandum, September 26, 2003

## APPENDIX B

SITE MAP



#### APPENDIX C

# STATEMENT OF WORK NON-TIME CRITICAL REMOVAL ACTION LE MARS COAL GAS PLANT SITE LE MARS, IOWA EPA ID No. IA0001032556

#### I. PURPOSE

The purpose of this project is for the City of Le Mars, Iowa (Respondent) to assist EPA by performing certain response actions that are part of EPA's non-time critical removal action at the Le Mars Coal Gas Plant Site (the Site) in Le Mars, Iowa, as set forth in the Action Memorandum, the Order and this Statement of Work (SOW).

#### II. GENERAL TASK REQUIREMENTS

For the purpose of this SOW Respondent shall, in accordance with applicable laws, regulations, guidance and policies, furnish fully trained personnel, services, materials, equipment, property, facilities, knowledge, and expertise to successfully complete the tasks required under this SOW. Respondent shall ensure that any and all services or products shall be delivered and provided in compliance with all applicable Federal, state, and local laws, regulations, guidance and policies and any changes to those laws which become effective after the effective date of the Order.

#### III. TECHNICAL REQUIREMENTS

Respondent shall perform the following activities pursuant to Section VIII of the Order and in addition to more specific requirements of the Order:

- a. Participate in a pre-meeting with the EPA On-Scene Coordinator (OSC) to discuss specific project objectives.
- b. Create and maintain an analytical summary database of any samples collected. Water samples will be collected from the twelve permanent ground water monitoring wells installed by EPA in and around the Site on a semi-annual basis for a two year period to determine natural attenuation.
- c. Procure a certified analytical laboratory for analysis of samples.
- d. Provide approximately 11,000 cubic yards of backfill soil to fill excavated areas at the Site as directed by the OSC.
- e. Develop a health and safety plan for field activities. Respondent or its contractor shall implement and manage a Health and Safety Program Plan in compliance with all requirements of EPA and the Occupational Safety and Health Administration (OSHA)

(29 C.F.R. 1910.120/121) for activities at hazardous waste sites and other health and safety requirements as appropriate.

- f. Develop a site-specific QAPP for sampling activities. EPA requires that all environmental monitoring and measurement efforts participate in a centrally managed quality assurance (QA) program. All locations shall be combined into one QAPP. The purpose of the QAPP is to document the project planning process, enhance the credibility of sampling results, produce data of known quality, and potentially save time and money. The QAPP is a formal document describing in comprehensive detail the necessary QA, quality control (QC), and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance criteria. All QA/QC procedures shall be in accordance with applicable professional technical standards, EPA requirements, government regulations and guidelines, and specific project goals and requirements.
- g. Document costs incurred for the response activities conducted by Respondent pursuant to the Order.
- h. Coordinate analytical support with the OSC.
- i. Dispose of investigative derived wastes, per applicable EPA guidance.
- j. Implement institutional controls to prevent exposure to contaminated soil and ground water as set forth in Paragraph 42(f) of the Order.

#### IV. REPORTS

Respondent shall submit a report to EPA within 30 days of the Effective Date of the Order concerning all actions undertaken by Respondent to-date. Thereafter, Respondent shall submit semi-annual progress reports to EPA beginning 45 days after the initial ground water sampling event as directed by EPA concerning ground water monitoring and any post-removal site control activities undertaken pursuant to this Order until termination of this Order, unless otherwise directed in writing by the OSC. A final report will be required at the completion of the 2 year period that includes the results of the well samples. Also, a complete summary database will be required as part of this report, listing all of the laboratory sample results. Both the Health and Safety Plan and the QAPP will need to be submitted to EPA prior to site activities for review/approval.

#### V. PROJECT CONTACTS

**EPA OSC:** 

Daniel J. Garvey
On-Scene Cóordinator
U.S. Environmental Protection Agency, Region VII
901 North 5<sup>th</sup> Street
Kansas City, Kansas 66101
(913) 551-7600

**EPA Counsel:** 

Alyse Stoy

**Assistant Regional Counsel** 

U.S. Environmental Protection Agency, Region VII

901 North 5th Street

Kansas City, Kansas 66101

(913) 551-7826

#### VI. STANDARD OPERATING PROCEDURES

Samples shall be collected and handled in accordance with the following national guidance documents and EPA Region VII Standard Operating Procedures (SOPs):

Removal Program Representative Sampling Guidance - Volume 1: Soil, Interim Final, U.S.EPA, OSWER Directive 9360.4-10, November 1991.

Compendium of ERT Field Analytical Procedures, OSWER Directive #9360.4-04, May 1992.

Field Chain-of-Custody of Environmental Samples, EPA Region VII SOP No. 2130.2A.

Identification, Documentation, and Tracking of Samples, EPA Region VII SOP No. 2130.3B.

Sample Container Selection, Preservation, and Holding Times, EPA Region VII SOP No. 2130.4B.

Quality Assurance/Quality Control Guidance for Removal Program Activities: Sampling QA/QC Plan and Data Validation Procedures, U.S. EPA, EPA/540/G90/004, April 1990.

Data Quality Objectives for Remedial Response Activities; Development Process, U.S. EPA, EPA/540/G-87/003, OSWER Directive 9355.0-7B, March 1987.

Data Quality Objectives Process for Superfund, U.S.EPA, EPA/540/R-93/071, Interim Final, September 1993.

A Compendium of Superfund Field Operations Methods, U.S. EPA, EPA/540/P-87/001, OSWER Directive 9355.0-14, December 1987.

Additional SOPs and/or SOPs developed by Respondent that address specialized sample collection and screening techniques may also be incorporated, if approved by EPA.

#### VIII. ADDITIONAL GUIDANCE DOCUMENTS

#### SW-846/RCRA General

SW-846, Third Edition, <u>Test Methods for Evaluating Solid Waste</u>, Volume Two, Chapter Nine: "Sampling Plan."

SW-846, Third Edition, <u>Test Methods for Evaluating Solid Waste</u>, Volume Two, Chapter Ten: "Sampling Methods."

#### Sources of Documents

#### Center for Environmental Research Information (CERI) (no charge)

Center for Environmental Research Information (CERI) ORD Publications
26 West Martin Luther King Drive
Cincinnati, OH 45268
(513) 569-7562

#### Public Information Center (PIC) (no charge)

U. S. Environmental Protection-Agency Public Information Center (PIC) PM-211B 401 M Street, S.W. Washington, DC 20460 (202) 382-2080

#### Superfund Docket and Information Center (SDIC) (no charge)

U.S. Environmental Protection Agency Superfund Docket and Information Center (SDIC) OS-245 401 M Street, S.W. Washington, DC 20460 (202) 382-6940

#### National Technical Information Services (NTIS) (cost varies)

National Technical Information Service U. S. Department of Commerce 5285 Port Royal Road Springfield, VA 22161

#### APPENDIX D

#### ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS

1. This Environmental Prot	ection Easement and Declaration of I	Restrictive Covenants is made
this day of	, 2004, by and between the City	of Le Mars, Iowa, ("Grantor")
having an address of	; and	("Grantee"),
having an address of	<u></u>	
	WITNESSETH:	
e de la companya del companya de la companya de la companya del companya de la co	he owner of a parcel of land located in the located he located on Exhibit A attached he	
which the U.S. Environmenta	y is part of the Le Mars Coal Gas Plant Protection Agency ("EPA"), pursual us Substances Pollution Contingency	nt to 40 C.F.R. § 300.415 of
	n Memorandum dated September 26, d a non-time critical removal action f	
No("C	inistrative Order on Consent for Remo Order"), Grantor agreed to conduct cer- time critical removal action that are	rtain response actions in
	l for areas of the Site excavated by El estitutional controls to prevent exposu	
Z XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.43	

- 6. WHEREAS, the parties hereto have agreed 1) to grant a permanent right of access over the Property to the Grantee for purposes of implementing, facilitating and monitoring the response actions to be performed by Grantor; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and
- 7. WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site;

#### NOW, THEREFORE:

- 9. Grant: Grantor, on behalf of itself and its successors and assigns, in consideration of the terms of the Order, hereby covenants and declares that the Property shall be subject to the restrictions on use set forth below, and do give, grant and convey to the Grantee, and its assigns, with general warranties of title, 1) the perpetual right to enforce said use restrictions, and 2) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.
- 10. <u>Purpose</u>: It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, to facilitate the cleanup of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.
- 11. <u>Restrictions on use</u>: The following covenants, conditions, and restrictions apply to the use of the Property, run with the land and are binding on the Grantor. Unless otherwise approved in writing by EPA, Grantor shall not:
  - a) Utilize the ground water underlying the Property for human drinking purposes;
  - b) Cause or allow a disturbance of the subsurface of the Site without prior EPA approval;
  - c) Use the Property for residential purposes; and
  - d) Construct any building or structure on the Property that contains a basement.
- 12. <u>Modification of restrictions</u>: The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee. If requested by the Grantor, such writing will be executed by the Grantee in recordable form.
- 13. <u>Environmental Protection Easement:</u> Grantor hereby grants to the Grantee an irrevocable, permanent and continuing right of access at all reasonable times to the Property for the purposes of:
  - a) Implementing the response actions in the Action Memorandum and the Order;
  - b) Verifying any data or information submitted to EPA;
  - c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;
  - d) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitations, sampling of water and specifically, without limitation, obtaining split or duplicate samples;
  - e) Conducting periodic reviews of the Grantor's response actions, including but not limited to reviews required by applicable statutes and/or regulations; and

- f) Implementing additional or new response actions if the Grantee, in its sole discretion, determines i) that such actions are necessary to protect the environment because either the original response actions performed by Grantor have proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and ii) that the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.
- 14. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.
- 15. Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.
- 16. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.
- 17. <u>Notice requirement</u>: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HI	EREBY IS SUBJECT TO AN	
ENVIRONMENTAL PROTECTION EASEM	MENT AND DECLARATION OF	4
RESTRICTIVECOVENANTS, DATED	, 200, RECORDED IN	
THE PUBLIC LAND RECORDS ON	, 200, IN BOOK, P	AGE
, IN FAVOR OF, AND ENFORCEABLI	E BY, THE UNITED STATES OF	
AMERICA.		

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantee with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

- 18. <u>Administrative jurisdiction</u>: The federal agency having administrative jurisdiction over the interests acquired by the United States by this instrument is the EPA.
- 19. <u>Enforcement</u>: The Grantee shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise their rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this instrument.

- 20. <u>Damages</u>: Grantee shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the removal action, to the public or to the environment protected by this instrument.
- 21. <u>Waiver of certain defenses</u>: Grantor hereby waives any defense of laches, estoppel, or prescription.
- 22. <u>Covenants</u>: Grantor hereby covenants to and with the United States and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has good and lawful right and power to sell and convey it or any interest therein, that the Property is free and clear of encumbrances, except those noted on Exhibit B attached hereto, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.
- 23. <u>Notices</u>: Any notice, demand, request, consent, approval, or communication that any party desires or is required to give shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

Grantor: C	my of Le	Mars, 19	<b>ywa</b>
Address			
Grantee: _	e i de la companya d	<u> </u>	
Address			

#### 24. General provisions:

- a) <u>Controlling law</u>: The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the laws of the state of Iowa.
- b) <u>Liberal construction</u>: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA, 42 U.S.C. § 9601 <u>et seq.</u> If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.
- c) <u>Severability</u>: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.
- d) <u>Entire Agreement</u>: This instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

- e) No Forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.
- shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantee" and their personal representatives, heirs, successors, and assigns. The rights of the Grantee and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.
- g) <u>Termination of Rights and Obligations</u>: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.
- h) <u>Captions</u>: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.
- i) <u>Counterparts</u>: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto the United States and its assigns forever.

Executed this \_\_\_\_ day of , 200 CITY OF LE MARS, IOWA: Ву: STATE OF \_\_\_\_\_\_) COUNTY OF On this day of \_\_\_\_, 200\_, before me, the undersigned, a Notary Public in and for the State of Iowa, duly commissioned and sworn, personally appeared known to be the \_\_\_\_\_\_ of \_\_\_\_\_, the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute said instrument. Witness my hand and official seal hereto affixed the day and year written above. Notary Public in and for the State of Iowa My Commission Expires: This declaration is accepted this day of , 200. By:

IN WITNESS WHEREOF, Grantor has caused this Agreement to be signed in its name.

This declaration is accepted this day o	of, 200
	U.S. ENVIRONMENTAL PROTECTION AGENCY
By:	

## EXHIBIT A

## LEGAL DESCRIPTION OF THE PROPERTY

## EXHIBIT B

# LIST OF PERMITTED TITLE ENCUMBRANCES